

MSC Guidelines for Review of General Arrangement Plans for Small Passenger Vessels (T)

Procedure Number: H1-07

Revision Date: 04/28/00

References

- a. 46 CFR Subchapter T, Part 177
 - b. MSM Vol. II, Section 9
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Disclaimer

These guidelines were developed by the Marine Safety Center staff as an aid in the preparation and review of vessel plans and submissions. They were developed to supplement existing guidance. They are not intended to substitute or replace laws, regulations, or other official Coast Guard policy documents. The responsibility to demonstrate compliance with all applicable laws and regulations still rests with the plan submitter. The Coast Guard and the U. S. Department of Transportation expressly disclaim liability resulting from the use of this document.

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SOLAS / RFSA Applicability

If SOLAS applies and vessel is existing, SOLAS retroactive fire safety amendments (RFSA's) may apply (see Plan Review Procedure Number: H2-22). The deadline for compliance with the major items was October 1, 1997, with some exemptions until December 31, 1998.

- ❑ SOLAS applies to new and existing vessels if:
 - (1) The vessel engages in an international voyage; and
 - (2) The vessel carries more than 12 passengers.
- ❑ RFSA's apply to existing vessels if:
 - (1) The vessel's keel was laid before October 1, 1994;
 - (2) The vessel engages in an international voyage (has a SOLAS certificate); and
 - (3) The vessel carries more than 36 passengers.

Equivalencies:

- (1) If the vessel carries < 50 passengers on a route between Florida and the Bahamas, is certified for 100 mile oceans route, is equipped with 100% liferafts, LORAN C and fathometer, and has two fixed bilge

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pumps, then RFSA's/SOLAS may not be applicable. By meeting these conditions, the vessel meets the SOLAS equivalency provided for in MSM Vol II 9.1.2.b, including RFSA's. See reference (a).

- (2) If the vessel is carrying ≤ 150 passengers (≤ 49 overnight), has 100% lifesaving, is certified for an Ocean route, and is limited to 20 miles from shore, then RSFA's/ SOLAS may not be applicable. By meeting these conditions, the vessel meets the equivalency provided for in MSM Vol II 9.H, and is equivalent to SOLAS, including RFSA's. See reference (a).

*Note: Vessel documentation should reflect equivalency considered.

General Review Guidance

Machinery and fuel tank spaces must be separated from accommodation spaces so as to prevent the passage of vapors.

Paint and flammable liquid lockers must be constructed of steel or equivalent material, or wholly lined with steel or equivalent material.

The resin for composite vessels must be fire retardant. General purpose resin may be used if additional requirements of §177.410(c) are met.

Escape Requirements (§177.500)

- ❑ Each space must have two widely separated means of escape, at least one of which is not dependent on a watertight door.
- ❑ Only one means of escape is required from a space where:
 - (a) the space has a deck area less than 30 m^2 (322 ft^2);
 - (b) there is no stove, heater or other source of fire in the space;
 - (c) the means of escape is located as far as possible from a machinery space or fuel tank; and
 - (d) if an accommodation space, the single means of escape does not include a deck scuttle or ladder.
- ❑ A ladder leading to a deck scuttle is not counted as a means of escape, except ladders from crew spaces or on vessels $\leq 19.8 \text{ m}$ (65 ft).
- ❑ When deck scuttles are counted they must be $\geq 455 \text{ mm}$ (18 in) in diameter.
- ❑ The minimum clear opening of a door or passageway must be $\geq 810 \text{ mm}$ (32 in) in width.
- ❑ Doors or passageways for crew members must be $\geq 710 \text{ mm}$ (28 in) in width.

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- ❑ Dead end passageways must be ≤ 6.1 meters (20 ft).
- ❑ The sum of the width of all doors and passageways used as means of escape from a space must be ≥ 8.4 mm (0.333 in) multiplied by number of passengers for which the space is designed

Passengers Permitted (§176.113)

- ❑ The max number of passengers must be \leq greatest number permitted by length of rail criterion, deck area criterion, or fixed seating criterion. See exceptions in §176.113(d).

Crew Spaces (§177.700, 710)

- ❑ Decks above crew accommodation spaces must be above the deepest load waterline.
- ❑ Overnight accommodations must be provided for crewmembers if the vessel is operated more than 12 hours in a 24 hour period.

Passenger Accommodations (§177.800-820)

- ❑ Ceilings in passenger accommodation spaces must be $\geq 1,880$ mm (74 inches).
- ❑ Decks above passenger accommodation spaces must be above the deepest load waterline.
- ❑ Each berth must be immediately adjacent to an aisle leading to a means of escape.
- ❑ An aisle alongside a berth must be ≥ 610 mm (24 inches). An aisle joining two or more aisles in an overnight accommodation space must be $\geq 1,060$ mm (42 in).
- ❑ Seats must be arranged as follows:
 - (1) Aisles ≤ 3.8 m (15 ft) in length must be ≥ 610 mm (24 in) in width.
 - (2) Aisles > 3.8 m (15 ft) in length must be ≥ 760 mm (30 in) in width.
 - (3) Where seats are in rows, the distance from seat front to seat front must be ≥ 760 mm (30 in).
- ❑ Berths must be provided for each overnight passenger.
- ❑ Seats must be provided for each passenger where fixed seating criterion in §176.113(b)(3) is used.

Rails and Guards (§177.900-970)

- ❑ Rails must be installed around decks accessible to passengers or crew.
- ❑ Height requirements:
 - (1) Ferries, excursion vessels, or ICLL: > 1000 mm (39.5 in),
 - (2) Others: 910 mm (36 in), except

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(3) Big game angling vessels, where the rail may be reduced to ≥ 760 mm (30 in) in way of a person using specialized angling techniques and equipment.

- ❑ Rails must be permanently installed with exceptions listed in §177.900(h).
- ❑ Deck rails must be designed to withstand point load of 91 kg (200 lbs) at any point in any direction and uniform load of 74 kg/m (50 lb/ft) applied to top rail in any direction. The point and uniform loads need not be applied simultaneously.
- ❑ Rail courses must be installed so no open space exceeds 305 mm (12 in).
- ❑ Temporary rails or equivalent must be installed in way of vehicle ramps.
- ❑ Suitable chains, cables, or other barriers must be installed at ends of vehicle runways.

Window Construction and Visibility (§177.1010-1030)

- ❑ Windows and port holes must be capable of withstanding max load expected.
- ❑ Glass and other glazing material used in windows must not break into dangerous fragments if fractured.